

Appln. No. 09/751,520
Amendment dated October 15, 2007
Reply to Office Action mailed November 20, 2006

REMARKS

Reconsideration is respectfully requested.

Claims 1 through 15, 17 through 22, 27 through 32, and 34 through 43 remain in this application. Claims 16, 23 through 26, and 33 have been cancelled. No claims have been withdrawn. No claims have been added.

The independent claims of the patent application have all been amended to include the requirement of "wherein the user interface data describing the at least one user interface function does not comprise a whole of the user interface of the remote device to thereby minimize resources of the information appliance utilized in configuring the information appliance to display the at least one representation". This requirement, which is described in the specification such as at, for example, page 5, lines 15 et seq., distinguishes the claimed invention from the system disclosed in the Humpleman patent. More specifically, Humpleman discusses, as noted in the rejection, at col. 7, lines 4 through 20, that (emphasis added):

By conforming to the Hypertext Markup Language (HTML) and Hypertext Transfer Protocol (HTTP) Internet standards, each home device sends its custom GUI to the browser based DTV 102. The browser based DTV 102 receives the HTML files from the home devices over the home network 100 using the HTTP protocol. Each HTML file contains specific control and command information for a respective home device. The HTML files enable the browser based DTV 102 to graphically display control and command information to a user for a particular home device. Therefore, because each home device supplies its own GUI through its own HTML files to the browser based DTV 102, the browser based DTV 102 can provide a command and control interface for a home device without having to know any specific details about the particular device. This feature allows the home network 100 to contain home devices from a multitude of different manufacturers.

It is therefore submitted that the Humpleman patent would not lead one of ordinary skill in the art to the claimed invention, and particularly the requirement of the independent claims set forth above.

Appln. No. 09/751,520
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As previously noted, the Humpleman system operates in a manner similar to the conventional systems described in the Background—that is, by downloading a user interface to the device being configured. As discussed in the specification, the present invention avoids this by configuring the user interface using a template of the information appliance itself. For example, the user interface of information appliance 402 can be configured to control functions on a variety of remote devices such as the devices 404, 403, 408, 410, 412, 414 and 416, as shown in Figure 4 *without downloading the user interfaces of the remote devices*. This can be important when the information appliance 402 is a “thin” information appliance—such as a PDA—with limited processing power, memory, limited network connection, and the like. Instead of transferring the entire user interface to enable the information appliance 402 to control the devices 404, 403, 408, 410, 412, 414 and 416, the various embodiments send data to the information appliance 402 containing instructions on how to configure a user interface suitable for interacting with the specific function of the devices. The information appliance then compares the data of the user interface functions with a template already contained in the information appliance.

The “remote device” in the claims refers to user devices such as devices 404, 403, 408, 410, 412, 414 and 416 depicted in Figure 4. The “information appliance” in the claims refers to the device being programmed (e.g., 402) to control the functions of the remote device(s). The “representations” of the user interface typically include backward and forward arrow keys, a keypad, a scroll bar or other such control representations for use in controlling and adjusting the information appliance. Figure 5 of the application depicts examples of user interface representations which may be used by a person to control and interact with the information appliances and remote devices.

Appln. No. 09/751,520
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The present invention is useful for information appliances which are "thin" devices having limited processing power and memory. Instead of transferring the entire user interface from the remote device to the information appliance, various embodiments of the present invention configure the information appliance's own template to perform control functions of the remote device. This avoids the extra resources (e.g., processing and memory) required to download the user interface of the remote devices. The claims recite features which avoid the need to download the remote device's user interface. For example, claim 1 recites:

"programming the assigned one or more representations (from the user interface template) of the information appliance to respectively control the one or more user interface functions of the remote device."

None of the art cited in the application teaches or suggests this claimed feature, or the similar features of other claims. The Humpleman patent is not concerned with processing and memory requirements since the Humpleman system does not use a thin device as an information appliance. The Humpleman system simply downloads the user interface from the remote device to the information appliance, thus, suffering from the disadvantages (excess processing/memory usage) described in the Background of the present application.

Further, the Humpleman patent teaches away from the claimed invention, thus rendering the rejection improper. In the present invention, as per claim 1, the information appliance receives data from the remote device describing its user interface functions, compares the user interface data to the template *of the information appliance*, and then representations (e.g., icons, etc.) from the template of the information appliance are assigned the functions of the remote device to be controlled. In other words, the information appliance uses its own user interface template by assigning functions of the remote device to it rather than downloading the user interface of the remote device. The Humpleman system does just the

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opposite. Humpleman downloads the user interface from the remote device. Humpleman explains this, stating that:

Generally, control may be implemented by transfer of a graphical control object (GCO), which preferably resides in the server, from the server for rendering on the client, to make the GUI. As an advantageous result of this approach, detailed controls back to the server originating the GCO may be proprietary, as the server device "understands" and is aware of its own GUI controls.

The Humpleman system not only downloads the user interface from the server (remote device), it touts the advantage of this since "the server device 'understands' and is aware of its own GUI controls." Consequently, Humpleman teaches away from using the interface template of the information appliance and "programming the assigned one or more representations of the information appliance to respectively control the one or more user interface functions of the remote device," as recited in claim 1, or other, similar features recited in the remaining claims.

The Office Action acknowledges that Humpleman does not teach the step of comparing the user interface data with a user interface template of the information appliance. It should be noted that this is "the" user interface data which describes interface functions of the remote device. The claimed invention compares this interface data of the remote device with the template of the information appliance so that it can use representations of the template—thus, avoiding the need to download the user interface from the remote device. The Humpleman system has no need to compare such data since it simply downloads the user interface from the remote device.


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CONCLUSION

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited.

Respectfully submitted,

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